

Amendments To The Claims

A complete list of all the presently or formerly pending claims in the application is provided below, with suitable headings to show the status of each claim and, where appropriate, its current text. This listing of claims will replace all prior versions, and listings of claims in this application.

Listing of Claims:

1-5. (Cancelled).

6. (Currently amended) A decorative hard coating composition comprising a metal-rich zirconium-aluminium oxycarbonitride, having a lower atomic concentration of aluminium than of zirconium, wherein the total atomic amount of said aluminium and zirconium is higher than the total atomic amount of said oxygen, carbon, and nitrogen in said metal-rich zirconium-aluminium oxycarbonitride.

7. (Currently amended) A decorative hard coating composition comprising a metal-rich zirconium-aluminium oxycarbonitride, wherein the atomic concentration of aluminium is less than about one fifth of the atomic concentration of zirconium, wherein the total atomic amount of said aluminium and zirconium is higher than the total atomic amount of said oxygen, carbon, and nitrogen in said metal-rich zirconium-aluminium oxycarbonitride.

8. (Previously presented) A decorative hard coating composition comprising a metal-rich zirconium-aluminium oxycarbonitride, having relative atomic concentrations of Zr:Al:N:O:C of approximately 56:10:23:7:4.

9. (Withdrawn) A decorative hard coating comprising metal-rich zirconium-aluminium oxycarbonitride, overlying a substrate, wherein the decorative hard coating further comprises an intermediate layer of a metal, alloy or metal-rich metal oxycarbonitride.

10. (Cancelled)

11. (Withdrawn) A decorative hard coating comprising metal-rich zirconium-aluminium oxycarbonitride, overlying a substrate of metal, plastic, or ceramic.

12-13. (Cancelled).

14. (Previously presented) The decorative hard coating composition as in claim 6, consisting essentially of the metal-rich zirconium-aluminium oxycarbonitride.

15. (Cancelled).

16. (Withdrawn) A coated article comprising a substrate and a decorative hard coating above the substrate that comprises metal-rich oxycarbonitrides of zirconium and aluminium.

17. (Cancelled).

18. (Withdrawn) A decorative hard coating comprising an aluminium or metal-rich aluminium oxycarbonitride layer on a metal-rich zirconium oxycarbonitride layer.

19. (Withdrawn) The decorative hard coating as in claim 18, wherein the zirconium-rich oxycarbonitride layer has a CIELAB '|b|' value of greater than about five, and the overall decorative hard coating has a CIELAB '|b|' value of at most about five.

20. (Withdrawn) The decorative hard coating as in claim 18, having a CIELAB color of 'L' of at least about 76, '|a|' of at most about 1, and '|b|' of at most about five.

21. (Withdrawn) The decorative hard coating as in claim 18, having a Vickers hardness of at least about 15 GPa.

22. (Withdrawn) A decorative hard coating comprising an overlayer comprising aluminium or metal-rich aluminium oxycarbonitride or aluminium-zirconium oxycarbonitride, the overlayer overlying a metal-rich metal oxycarbonitride layer, the decorative hard coating:

having a CIELAB color of 'L' of at least about 76, '|a|' of at most about 1, and '|b|' of at most about five; or

having a Vickers hardness of at least about 15 GPa.

23. (Withdrawn) A decorative hard coating comprising an overlayer comprising aluminium or metal-rich aluminium oxycarbonitride or aluminium-zirconium oxycarbonitride, the overlayer overlying a metal-rich metal oxycarbonitride layer, the decorative hard coating having a CIELAB color of 'L' of at least about 76, '|a|' of at most about 1, and '|b|' of at most about five.

24. (Withdrawn) A decorative hard coating comprising an overlayer comprising aluminium or metal-rich aluminium oxycarbonitride or aluminium-zirconium oxycarbonitride, the overlayer overlying a metal-rich metal oxycarbonitride layer, the decorative hard coating having a Vickers hardness of at least about 15 GPa.

25. (Withdrawn) The decorative hard coating as in claim 22, applied to a substrate and further comprising a layer of metal, alloy, or metal oxycarbonitride.

26. (Withdrawn) A decorative hard coating comprising an underlayer and an overlayer, wherein the underlayer comprises metal-rich oxycarbonitride, and the overlayer comprises aluminium in some form.

27. (Withdrawn) The decorative hard coating as in claim 26, wherein the underlayer has a CIELAB color value '|b|' of greater than about five, and the decorative hard coating has a CIELAB color value '|b|' of at most about five.

28. (Withdrawn) The decorative hard coating as in claim 26, wherein the overlayer comprises aluminium in the form of aluminium oxycarbonitride or metallic aluminium.

29. (Withdrawn) The decorative hard coating as in claim 26, wherein the metal-rich oxycarbonitride comprises zirconium oxycarbonitride.

30. (Withdrawn) The decorative hard coating as in claim 26, wherein the metal-rich oxycarbonitride comprises zirconium oxycarbonitride or stainless steel.

31. (Withdrawn) The decorative hard coating as in claim 26, wherein the overlayer consists substantially of aluminium or metal-rich aluminium oxycarbonitride, and the underlayer consists substantially of metal-rich oxycarbonitride.

32. (Withdrawn) The decorative hard coating as in claim 26, having thickness of about 0.2 micron to about 3 microns.

33. (Withdrawn) The decorative hard coating as in claim 26, wherein the underlayer has a CIELAB ' $|b|$ ' value of greater than about five, and the decorative hard coating has a CIELAB ' $|b|$ ' value of at most about five.

34. (Withdrawn) The decorative hard coating as in claim 26, having a CIELAB color of 'L' of at least about 76, ' $|a|$ ' of at most about 1, and ' $|b|$ ' of at most about five.

35. (Withdrawn) The decorative hard coating as in claim 26, having a Vickers hardness of at least about 15 GPa.

36. (Withdrawn) The decorative hard coating as in claim 26, having a Vickers hardness of at least about 15 GPa and a CIELAB color of 'L' of at least about 76, ' $|a|$ ' of at most about 1, and ' $|b|$ ' of at most about five; wherein the underlayer has a CIELAB 'b' value of greater than about five.

37. (Withdrawn) The decorative hard coating as in claim 26, deposited on a substrate by evaporation, arc deposition, sputtering, or a combination thereof.

38. (Withdrawn) A method of making a metallic white decorative coating comprising:
providing a substrate; and
forming a layer of zirconium-aluminium oxycarbonitride over the substrate, the layer
having a lower atomic concentration of aluminium than of zirconium.

39. (Withdrawn) The method according to claim 38, wherein the forming step
comprises arc depositing zirconium and magnetron sputtering of aluminium, with a gas mixture
of argon, nitrogen, oxygen, and acetylene.

40. (Withdrawn) A method of making a metallic white decorative coating comprising:
providing a substrate;
forming an underlayer, comprising metal-rich oxycarbonitride, over the substrate; and
forming an overlayer, comprising aluminium or metal-rich aluminium oxycarbonitride
over the underlayer.

41. (Withdrawn) The method according to claim 40, wherein the step of forming the
underlayer comprises depositing zirconium and aluminium, with a gas mixture including at least
nitrogen.

42. (Withdrawn) The method according to claim 40, wherein the metallic white
coating has a CIELAB color of 'L' of at least about 76, '|a|' of at most about one, and '|b|' of at
most about five.

43. (Withdrawn) A method of producing an article that is coated according to the
method according to claim 40, the producing method comprising the providing step and the
forming steps, wherein the providing step comprises providing, as the substrate, an article to be
coated.

44. (Withdrawn) A coated article produced according to the producing method
according to claim 43.

45. (Withdrawn) A method of forming a decorative coating on a substrate, the method comprising:

forming a metal-rich layer over the substrate, the metal-rich layer comprising zirconium-aluminium oxycarbonitride.

46. (Withdrawn) The method according to claim 45, wherein the forming step comprises forming the metal-rich layer using physical vapor deposition.

47. (Withdrawn) The method according to claim 45, wherein the layer has a CIELAB color of 'L' of at least about 76, '|a|' of at most about one, and '|b|' of at most about four.

48. (Withdrawn) A method of producing an article that is coated according to the method according to claim 45, the producing method comprising:

providing, as the substrate, an article to be coated; and
the forming step.

49. (Withdrawn) A coated article produced according to the producing method according to claim 48.

50. (Withdrawn) A method of forming a decorative coating on a substrate, the method comprising:

forming a layer comprising zirconium-aluminium oxycarbonitride having a CIELAB color of 'L' of at least about 76, '|a|' of at most about one, and '|b|' of at most about five.

51-53. (Cancelled).

54. (Withdrawn) An article coated with the decorative hard coating composition according to claim 6.

55. (Cancelled).

56. (Withdrawn) A method of making a metallic white decorative coating comprising:
providing a substrate; and
forming a layer of zirconium-aluminium oxycarbonitride over the substrate, the layer
having a lower atomic concentration of aluminium than of zirconium;
wherein the forming step comprises employing physical vapor deposition.

57. (Withdrawn) A method of making a metallic white decorative coating comprising:
providing a substrate; and
forming a layer of zirconium-aluminium oxycarbonitride over the substrate, the layer
having a lower atomic concentration of aluminium than of zirconium;
wherein the layer has a CIELAB color of 'L' of at least about 76, '|a|' of at most about
one, and '|b|' of at most about five.

58. (Withdrawn) An article coated according to a method of making a metallic white
decorative coating, the method comprising:
providing a substrate; and
forming a layer of zirconium-aluminium oxycarbonitride over the substrate, the layer
having a lower atomic concentration of aluminium than of zirconium.

59-62. (Cancelled).

63. (Previously presented) The decorative hard coating composition according to claim 6,
having a CIELAB color scale of L of at least about 76, |a| of at most about one, and |b| of at most
about five.

64. (Previously presented) The decorative hard coating composition according to claim 6,
having a Vickers hardness of at least about 15 GPa.

65. (Previously presented) The decorative hard coating composition according to claim 64, having a CIELAB color scale of L of at least about 76, |a| of at most about one, and |b| of at most about five.

66. (Previously presented) The decorative hard coating composition according to claim 7, having a CIELAB color scale of L of at least about 76, |a| of at most about one, and |b| of at most about five.

67. (Previously presented) The decorative hard coating composition according to claim 7, having a Vickers hardness of at least about 15 GPa.

68. (Previously presented) The decorative hard coating composition according to claim 67, having a CIELAB color scale of L of at least about 76, |a| of at most about one, and |b| of at most about five.

69. (Previously presented) The decorative hard coating composition according to claim 8, having a CIELAB color scale of L of at least about 76, |a| of at most about one, and |b| of at most about five.

70. (Previously presented) The decorative hard coating composition according to claim 8, having a Vickers hardness of at least about 15 GPa.

71. (Previously presented) The decorative hard coating composition according to claim 70, having a CIELAB color scale of L of at least about 76, |a| of at most about one, and |b| of at most about five.